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LEARNING FROM THE BEST: IMPROVING LEARNING THROUGH EFFECTIVE TEACHER POLICIES

Why is Teacher Effectiveness Important?

An education system is only as good as its teachers. Both developed and developing countries have increasingly become concerned with increasing the effectiveness of their teachers. This interest has been sparked by a series of factors:

- **Student achievement correlates with economic and social progress.** Research finds that countries with higher student achievement on international exams tend to have higher rates of economic growth; individuals who perform better in school also tend to earn higher wages. In addition, countries with better-educated populations have more consolidated democracies. These findings highlight the importance of student learning outcomes.
- **International assessments identify countries that need to improve student learning.** Countries at various income levels participate in international student achievement tests, allowing for student achievement to be compared across countries. These comparisons have led several governments to realize that their students were underperforming world standards.
- **Teacher effectiveness is a key predictor of student learning.** In fact, it has been found to be the most important school-based predictor of student learning (Hanushek and Rivkin 2010), a finding that indicates the potential for teacher policies to improve student learning.

Challenges to Effective Teacher Policies

Despite growing demand for guidance on policies that raise teacher effectiveness, achieving the right teacher policies for a given education system remains a challenge for several reasons:

- evidence on the impacts of many teacher policies remains insufficient;
- the impact of many reforms depends on specific design features;
- the same policies can have very different impacts in different contexts; and
- teacher policies, like any other set of policies, interact—that is, the effect of a specific teacher policy depends on policies already in place and whether these other policies reinforce, offset, or undermine the objectives of the new interventions.

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Key Policy Goals Associated with Teacher Effectiveness

Based on a review of available evidence, the World Bank's SABER-Teachers team identified eight teacher policy goals and corresponding policy levers that affect teacher effectiveness. These goals highlight best practices and key challenges in education systems worldwide and inform policy decisions (figure 1). They were selected because they are linked to either student or teacher performance through theory and/or evidence; identify priorities for resource allocation; and are actionable, that is, governments can have a direct influence on the goals through policy reforms. The eight goals are:

1. Setting clear expectations for teachers. Education systems can set clear expectations for teachers by specifying what students should learn at each grade level (as defined by curricula and standards) and making sure there are enough hours of instruction per year. Research shows that increases in instructional time are linked to learning gains.

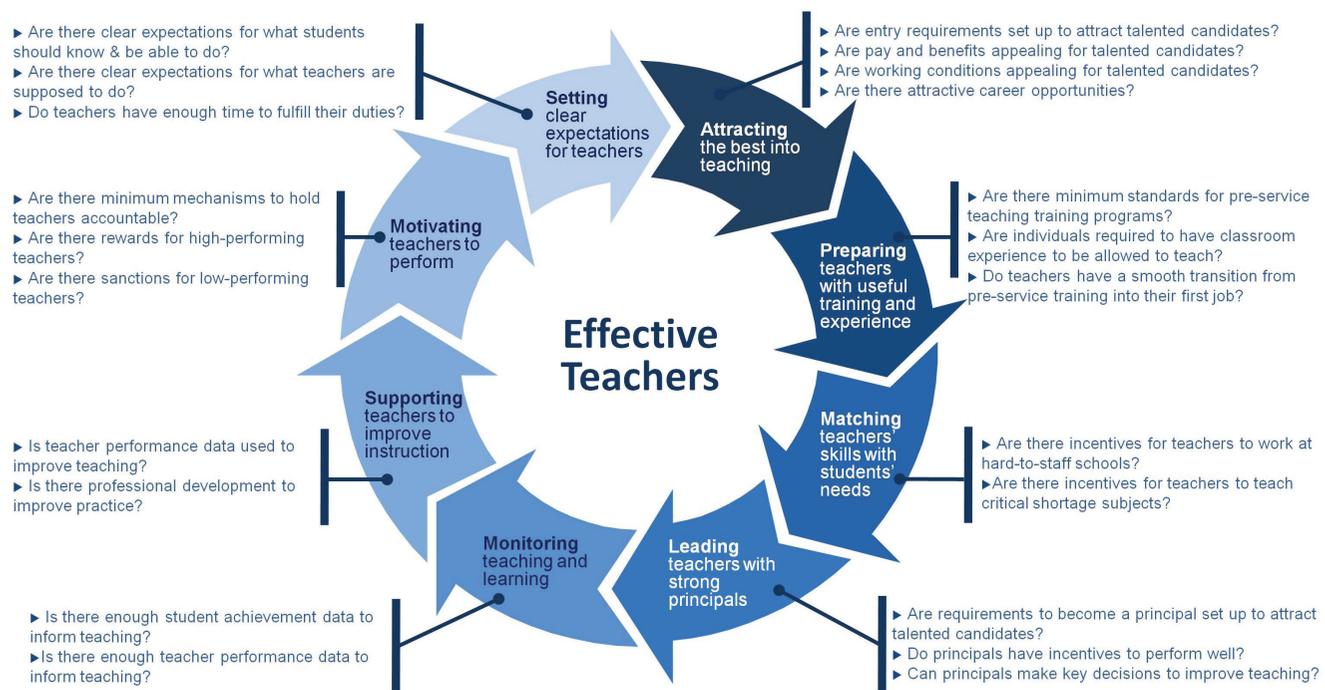
2. Attracting the best into teaching. Education systems can make sure qualified individuals opt to become teachers by creating entry requirements that attract talented candidates, paying competitive salaries, and ensuring that working conditions and career opportunities are appealing. Research indicates that higher salaries attract more able candidates to teaching (Barber and Mourshed 2007). Determining the right entry requirements is difficult, however, as the observable characteristics of teaching candidates (e.g., educational attainment) account for a very small share of variations in teacher effectiveness. In addition, improving working

conditions by lowering student-teacher ratios can improve in-class interaction and reduce teacher turnover (Bloom, Thompson, and Unterman 2010).

3. Preparing teachers with useful training and experience. Education systems can promote teacher effectiveness by instituting minimum standards for pre-service teacher education programs and supporting novice teachers in their transition from pre-service training to their first jobs. Research suggests that no one teacher training model is consistently superior. Formal teacher education has been shown to lead to better teacher evaluations and student learning, although alternative models (e.g., Teach for America) seem to produce better results than traditional models in some subjects and grades (Boyd and others 2006; Darling-Hammond and others 2005). Education systems also need to determine the most effective balance between subject matter knowledge and pedagogy in pre-service teacher education. Several studies have found that subject matter knowledge can positively impact teacher performance (Darling-Hammond 1999); other research cautions that subject matter knowledge may be important for achieving basic competence, but less important thereafter (Goldhaber and Brewer 2000). Finally, available evidence suggests that induction programs that support novice teachers can make these teachers more effective in the classroom and reduce teacher turnover.

4. Matching teachers' skills with students' needs. Education systems can promote teacher effectiveness by making sure that there are sufficient incentives for good teachers to work at hard-to-staff schools and to teach critical subjects. Without purposeful incentives, teachers tend to gravitate towards schools with better working conditions (which often serve better-off students). Evidence suggests, however, that the

Figure 1. Teacher Policy Goals and their Associated Policy Levers



Research on top performing education systems identified four ways in which they achieve excellence in teaching: professional autonomy, shared responsibility, career development, and performance management.

specific design of incentives programs matter (Hanushek and others 2004). Offering higher salaries to teachers who specialize in subjects for which there are critical teacher shortages can potentially make teaching a relatively more attractive profession for individuals who major in high-demand fields, such as math and science.

5. Leading teachers with strong principals. The quality of school heads is second only to classroom teaching as a predictor of student learning (Leithwood and others 2006). Quality principals attract and retain quality teachers (Boyd and others 2009; Ingersoll 2001). Capable principals also spearhead improvements at the school level. Once education systems encourage talented candidates to become principals, they need to focus these leaders on improving instruction (Barber and Mourshed 2007). A growing body of evidence finds that when principals have a say in the hiring and firing of teachers, they tend to hire teachers who turn out to be effective classroom instructors and make sound dismissal decisions based on teacher effort and performance (although less so in the case of teacher pay) (Rockoff and others 2010).

6. Monitoring teaching and learning. Assessing how well teachers are teaching and whether students are learning is essential. Assessments identify struggling classrooms in order to provide them necessary and timely support; they also identify good practices that can be shared to improve teaching across a given system. Research suggests that is crucial to assess teacher performance in different ways, since no one evaluation method (e.g., classroom observation or value-added model) is fail-safe (Grossman and others 2010).

7. Supporting teachers to improve instruction. Education systems can support teachers by providing them useful professional development that exposes them to best practices and offers clear guidelines on how to implement these practices. In virtually all education systems, professional development includes such activities as courses and workshops. Yet a growing body of evidence finds that other types of professional development—such as teacher networks and mentoring—can also improve teacher performance (Rockoff 2008).

8. Motivating teachers to perform. Education systems can motivate teachers to perform well by both creating accountability mechanisms (e.g., establishing penalties for teacher absenteeism and poor performance) and rewarding outstanding performance. Several merit pay programs have been found to raise teacher and student performance.

Yet evidence shows that the design of monetary incentive programs matters (e.g., the method used to evaluate teacher performance, whether incentives are group- or individually-based, etc.) (Lavy 2007; Mizala and Romaguera 2005).

Improving Teacher Effectiveness

Successful education systems achieve the eight SABER-Teacher teacher policy goals in different ways, but they all produce superior student and teacher performance. The World Bank has studied top-performing systems and identified four ways in which they achieve excellent teaching (figure2). These four “teacher policy profiles” are:

- **Professional autonomy.** These systems are particularly effective at attracting the best individuals to the teaching profession and preparing them exceptionally. Once teachers enter the profession, the system grants them ample discretion to decide how to best achieve superior student performance and focuses on supporting them rather than trying to steer them in any particular direction. Finland provides a good example of this type of system.
- **Shared responsibility.** These systems also place considerable trust in teachers. Such systems are built on the notion that excellent teaching is not the responsibility of a single instructor, but rather, of the profession as a whole. Thus, they institute mechanisms that foster collaboration and encourage teachers to hold their peers accountable for the quality of their work. Shanghai, China, offers a good example of this type of system.
- **Career development.** These systems are not satisfied with rigorous teacher entry standards. They also build teachers’ capacity throughout their careers, providing them induction programs, professional development, and formative assessments. In addition, they recruit the best teachers to be principals, so that they may become effective instructional leaders. Ontario, Canada, provides a good example of this type of system.
- **Performance management.** These systems exert tight control over teachers’ daily work in the classroom. They provide teachers with detailed guidelines, closely monitor the execution of these guidelines, and use multiple incentives to reward outstanding teaching. At the same time, accountability mechanisms tackle poor teacher effort and performance. Singapore offers a good example of this type of system.

Education systems looking to improve are advised to articulate how they expect to have an effective teacher in every classroom. The four system profiles outlined above provide alternative options derived from successful systems. This does not mean that a system cannot achieve superior performance by following a combination of two or more profiles, or even by pursuing a different route altogether. The options presented here—taken from top-performing education systems—nevertheless offer a clear roadmap toward improvement.



Figure 2. Quality Assurance in Teaching: Four Teacher Policy Profiles



Source: SABER-Teachers Team, World Bank.

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